

1 General

1.1 Customer Information

Company	PICEANCE HL
Representative	Eric Kolstad
Address	1515 Arapahoe St., Suite 1000 Denver, CO 80202

1.2 Well Information

Well	RG 532-14-298	Wellbore No.	OH
Well Name	FEDERAL 532-14-298	Common Name	RG 532-14-298
Project	RG 14-02S-098W	Site	RG 32-14-298 Pad
Vertical Section Azimuth	163.98 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	1/21/2011	UWI	RG 532-14-298
Active Datum	KELLY BUSHING @6,568.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	11/19/2010	Ended	
Tool Name	MWD	Engineer	

2.1.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)

2.1.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)

2.2 Survey Name: Survey #2

Survey Name	Survey #2	Company	
Date Started	1/20/2011	Ended	
Tool Name	MWD	Engineer	

2.2.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

2.2.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
1/20/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.3 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	1/21/2011	Ended	
Tool Name	MWD	Engineer	

2.3.1 Tie On Point

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

2.3.2 Survey Stations

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
1/21/2011	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/21/2011	NORMAL	155.0	1.80	196.90	154.97	-2.33	-0.71	2.04	1.16	1.16	0.00	196.90
	NORMAL	217.0	2.50	167.20	216.93	-4.58	-0.69	4.21	2.09	1.13	-47.90	286.71
	NORMAL	243.0	3.10	167.20	242.90	-5.82	-0.41	5.48	2.31	2.31	0.00	0.00
	NORMAL	277.0	3.60	151.00	276.84	-7.65	0.31	7.44	3.13	1.47	-47.65	289.60
	NORMAL	305.0	4.00	149.00	304.78	-9.25	1.24	9.24	1.50	1.43	-7.14	340.67
	NORMAL	336.0	4.40	143.80	335.70	-11.14	2.50	11.40	1.78	1.29	-16.77	313.79
	NORMAL	365.0	4.80	157.40	364.61	-13.16	3.62	13.65	3.99	1.38	46.90	76.73
	NORMAL	395.0	5.00	165.10	394.50	-15.58	4.44	16.20	2.29	0.67	25.67	76.95
	NORMAL	429.0	5.30	170.80	428.36	-18.56	5.07	19.24	1.74	0.88	16.76	62.47
	NORMAL	462.0	5.50	176.80	461.21	-21.65	5.41	22.30	1.81	0.61	18.18	73.50
	NORMAL	493.0	5.90	170.40	492.06	-24.70	5.75	25.33	2.42	1.29	-20.65	298.97
	NORMAL	525.0	6.20	158.70	523.88	-27.93	6.66	28.68	3.96	0.94	-36.56	277.81
	NORMAL	554.0	6.80	150.70	552.70	-30.89	8.07	31.92	3.74	2.07	-27.59	299.51
	NORMAL	613.0	7.30	152.80	611.25	-37.27	11.49	38.99	0.95	0.85	3.56	28.32
	NORMAL	707.0	6.80	166.60	704.55	-47.99	15.51	50.41	1.87	-0.53	14.68	113.22
	NORMAL	799.0	8.30	176.60	795.75	-59.92	17.16	62.33	2.16	1.63	10.87	46.25
	NORMAL	894.0	7.70	170.70	889.83	-73.05	18.60	75.34	1.07	-0.63	-6.21	230.95
	NORMAL	989.0	6.60	155.00	984.10	-84.28	21.94	87.06	2.35	-1.16	-16.53	232.99
	NORMAL	1,084.0	6.90	171.30	1,078.45	-94.87	25.11	98.11	2.03	0.32	17.16	89.25
1/22/2011	NORMAL	1,178.0	7.10	168.80	1,171.75	-106.15	27.09	109.50	0.39	0.21	-2.66	302.04
	NORMAL	1,273.0	7.50	167.40	1,265.98	-117.96	29.58	121.54	0.46	0.42	-1.47	335.33
	NORMAL	1,368.0	8.10	158.40	1,360.10	-130.23	33.40	134.39	1.43	0.63	-9.47	291.66
	NORMAL	1,463.0	8.30	158.90	1,454.13	-142.85	38.33	147.88	0.22	0.21	0.53	19.87
	NORMAL	1,558.0	7.20	158.50	1,548.26	-154.79	42.98	160.64	1.16	-1.16	-0.42	182.61
	NORMAL	1,652.0	7.10	162.80	1,641.53	-165.82	46.86	172.31	0.58	-0.11	4.57	102.71
	NORMAL	1,746.0	7.10	162.00	1,734.81	-176.89	50.37	183.93	0.11	0.00	-0.85	269.60
	NORMAL	1,840.0	6.70	164.60	1,828.13	-187.71	53.62	195.21	0.54	-0.43	2.77	143.30
	NORMAL	1,934.0	7.10	165.50	1,921.45	-198.62	56.53	206.51	0.44	0.43	0.96	15.57
	NORMAL	2,027.0	7.10	164.00	2,013.73	-209.71	59.56	218.00	0.20	0.00	-1.61	269.26
1/23/2011	NORMAL	2,121.0	6.60	165.00	2,107.06	-220.51	62.56	229.21	0.55	-0.53	1.06	167.08
	NORMAL	2,214.0	6.70	162.10	2,199.44	-230.83	65.61	239.97	0.38	0.11	-3.12	285.14
	NORMAL	2,308.0	5.70	161.20	2,292.89	-240.47	68.80	250.12	1.07	-1.06	-0.96	185.10
	NORMAL	2,402.0	5.50	162.60	2,386.44	-249.19	71.65	259.28	0.26	-0.21	1.49	146.36
	NORMAL	2,496.0	5.80	161.00	2,479.98	-257.98	74.54	268.53	0.36	0.32	-1.70	331.50
	NORMAL	2,590.0	7.80	162.10	2,573.31	-268.54	78.05	279.65	2.13	2.13	1.17	4.27
	NORMAL	2,683.0	7.40	162.50	2,665.50	-280.26	81.79	291.94	0.43	-0.43	0.43	172.66
	NORMAL	2,778.0	7.00	158.40	2,759.75	-291.47	85.76	303.82	0.69	-0.42	-4.32	230.08
	NORMAL	2,872.0	8.20	160.50	2,852.92	-303.12	90.11	316.21	1.31	1.28	2.23	14.07
	NORMAL	2,966.0	8.30	162.30	2,945.95	-315.90	94.41	329.69	0.29	0.11	1.91	69.73
	NORMAL	3,061.0	8.70	169.80	3,039.91	-329.51	97.76	343.69	1.24	0.42	7.89	73.89
	NORMAL	3,156.0	8.70	167.20	3,133.82	-343.58	100.63	358.01	0.41	0.00	-2.74	268.71
	NORMAL	3,215.0	8.30	165.20	3,192.17	-352.05	102.70	366.72	0.84	-0.68	-3.39	215.48
2/27/2011	NORMAL	3,358.0	6.70	170.20	3,333.94	-370.25	106.76	385.34	1.21	-1.12	3.50	160.28

2.3.2 Survey Stations (Continued)

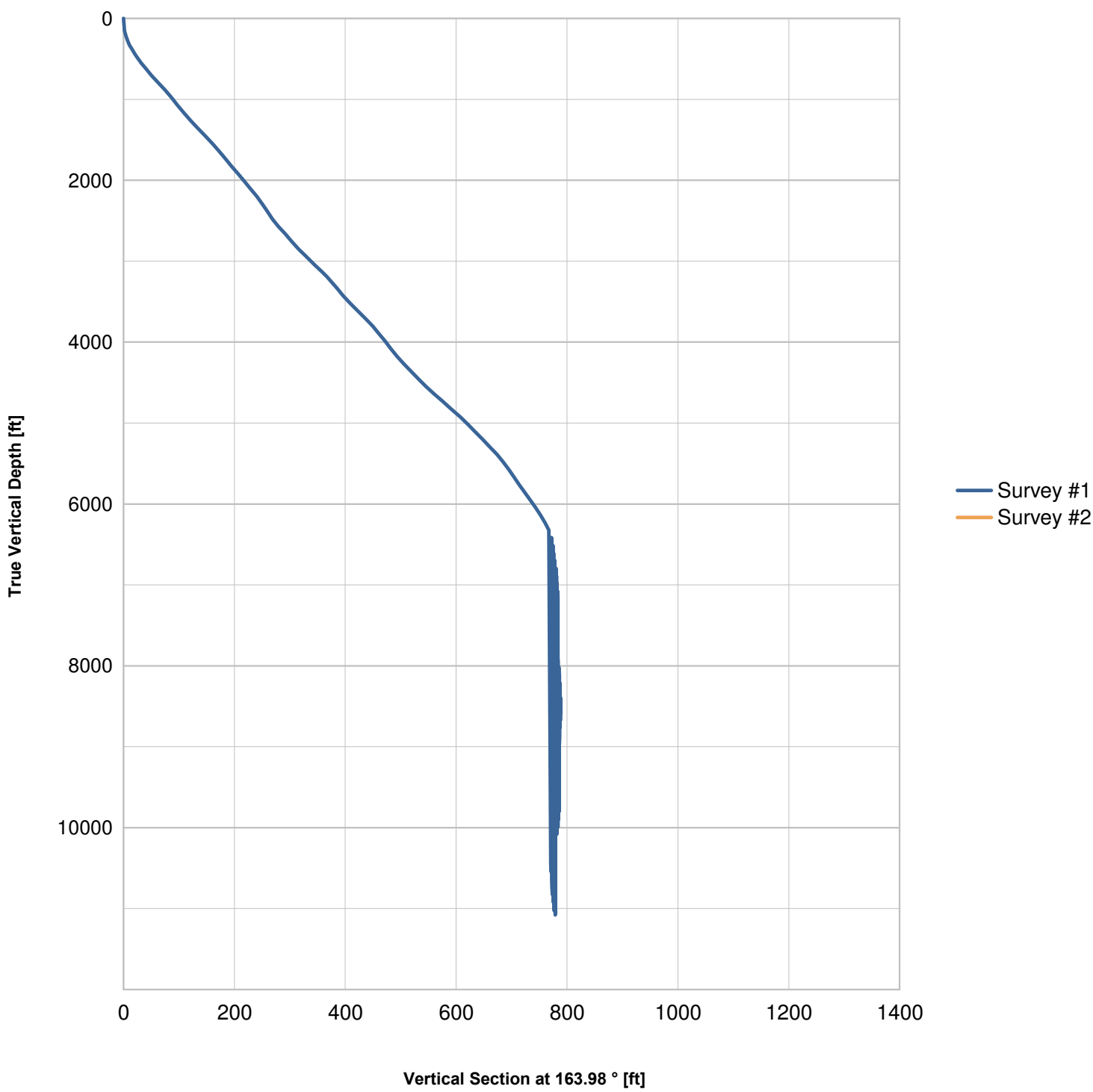
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
2/27/2011	NORMAL	3,452.0	7.00	165.50	3,427.27	-381.20	109.13	396.51	0.68	0.32	-5.00	295.81
	NORMAL	3,546.0	8.40	173.60	3,520.42	-393.57	111.33	409.01	1.88	1.49	8.62	41.84
	NORMAL	3,641.0	8.50	175.90	3,614.39	-407.47	112.60	422.72	0.37	0.11	2.42	74.66
	NORMAL	3,735.0	8.30	167.00	3,707.39	-421.01	114.63	436.29	1.40	-0.21	-9.47	256.87
2/28/2011	NORMAL	3,829.0	7.40	164.30	3,800.51	-433.45	117.79	449.12	1.03	-0.96	-2.87	200.95
	NORMAL	3,923.0	6.60	165.10	3,893.81	-444.50	120.82	460.58	0.86	-0.85	0.85	173.45
	NORMAL	4,019.0	6.30	165.60	3,989.20	-454.93	123.55	471.36	0.32	-0.31	0.52	169.64
	NORMAL	4,114.0	6.90	160.30	4,083.57	-465.35	126.77	482.26	0.90	0.63	-5.58	311.91
	NORMAL	4,207.0	7.00	166.20	4,175.89	-476.12	130.00	493.50	0.77	0.11	6.34	84.96
	NORMAL	4,302.0	7.70	165.70	4,270.11	-487.90	132.95	505.65	0.74	0.74	-0.53	354.53
	NORMAL	4,397.0	8.30	164.20	4,364.18	-500.67	136.39	518.87	0.67	0.63	-1.58	340.07
	NORMAL	4,491.0	7.90	157.40	4,457.24	-513.16	140.72	532.07	1.10	-0.43	-7.23	244.00
	NORMAL	4,585.0	8.70	159.30	4,550.26	-525.78	145.72	545.57	0.90	0.85	2.02	19.87
	NORMAL	4,679.0	9.80	164.20	4,643.04	-540.12	150.41	560.66	1.44	1.17	5.21	38.04
	NORMAL	4,773.0	8.80	169.30	4,735.80	-554.89	153.92	575.82	1.38	-1.06	5.43	143.00
	NORMAL	4,866.0	9.80	167.10	4,827.58	-569.59	157.01	590.80	1.14	1.08	-2.37	339.34
	NORMAL	4,961.0	9.40	163.90	4,921.25	-584.93	160.97	606.64	0.70	-0.42	-3.37	231.58
	NORMAL	5,055.0	8.30	172.40	5,014.13	-599.03	163.99	621.02	1.81	-1.17	9.04	134.22
	NORMAL	5,150.0	7.80	168.80	5,108.20	-612.15	166.15	634.23	0.75	-0.53	-3.79	223.46
3/1/2011	NORMAL	5,244.0	8.40	159.70	5,201.26	-624.85	169.77	647.44	1.50	0.64	-9.68	290.53
	NORMAL	5,338.0	7.90	158.10	5,294.31	-637.28	174.57	660.71	0.58	-0.53	-1.70	203.61
	NORMAL	5,432.0	7.60	159.10	5,387.45	-649.08	179.19	673.33	0.35	-0.32	1.06	156.29
	NORMAL	5,527.0	6.60	158.40	5,481.72	-660.03	183.44	685.02	1.06	-1.05	-0.74	184.60
	NORMAL	5,621.0	6.20	152.70	5,575.14	-669.56	187.76	695.38	0.80	-0.43	-6.06	235.00
	NORMAL	5,715.0	5.50	155.70	5,668.65	-678.18	191.94	704.81	0.81	-0.74	3.19	157.89
	NORMAL	5,809.0	5.70	156.00	5,762.20	-686.55	195.69	713.89	0.22	0.21	0.32	8.48
	NORMAL	5,903.0	6.30	149.80	5,855.69	-695.27	200.19	723.52	0.94	0.64	-6.60	309.68
	NORMAL	5,998.0	6.10	151.40	5,950.13	-704.21	205.23	733.50	0.28	-0.21	1.68	139.97
	NORMAL	6,091.0	5.50	159.80	6,042.66	-712.73	209.13	742.76	1.12	-0.65	9.03	129.38
	NORMAL	6,185.0	5.50	162.20	6,136.22	-721.24	212.06	751.76	0.24	0.00	2.55	91.19
	NORMAL	6,279.0	4.70	155.60	6,229.85	-729.04	215.03	760.07	1.05	-0.85	-7.02	213.00
	NORMAL	6,374.0	3.70	147.80	6,324.60	-735.18	218.27	766.87	1.21	-1.05	-8.21	205.89
	NORMAL	6,467.0	2.30	155.90	6,417.47	-739.42	220.63	771.60	1.57	-1.51	8.71	167.17
	NORMAL	6,562.0	0.80	152.80	6,512.43	-741.75	221.72	774.13	1.58	-1.58	-3.26	181.65
3/2/2011	NORMAL	6,656.0	1.10	175.80	6,606.42	-743.24	222.08	775.66	0.51	0.32	24.47	63.68
	NORMAL	6,750.0	1.80	192.20	6,700.39	-745.58	221.84	777.84	0.86	0.74	17.45	39.03
	NORMAL	6,845.0	0.90	162.70	6,795.36	-747.75	221.74	779.91	1.17	-0.95	-31.05	203.55
	NORMAL	6,939.0	0.60	103.60	6,889.35	-748.57	222.44	780.89	0.83	-0.32	-62.87	221.02
	NORMAL	7,033.0	0.80	183.80	6,983.35	-749.34	222.87	781.75	0.97	0.21	85.32	120.47
	NORMAL	7,128.0	0.70	136.00	7,078.34	-750.42	223.23	782.88	0.65	-0.11	-50.32	237.55
	NORMAL	7,221.0	0.80	55.30	7,171.33	-750.46	224.16	783.18	1.05	0.11	-86.77	234.14
	NORMAL	7,318.0	1.80	55.60	7,268.31	-749.21	225.98	782.48	1.03	1.03	0.31	0.54
	NORMAL	7,409.0	1.10	66.60	7,359.28	-748.06	227.96	781.92	0.82	-0.77	12.09	163.75
	NORMAL	7,503.0	1.60	58.70	7,453.25	-747.02	229.91	781.46	0.57	0.53	-8.40	335.60
	NORMAL	7,599.0	1.50	58.80	7,549.22	-745.67	232.13	780.77	0.10	-0.10	0.10	178.50
	NORMAL	7,693.0	0.70	68.20	7,643.20	-744.82	233.71	780.39	0.87	-0.85	10.00	171.96
	NORMAL	7,787.0	0.50	138.20	7,737.20	-744.91	234.52	780.70	0.75	-0.21	74.47	138.39
	NORMAL	7,881.0	1.20	193.20	7,831.19	-746.18	234.57	781.93	1.06	0.74	58.51	79.15
	NORMAL	7,974.0	2.40	219.80	7,924.14	-748.62	233.10	783.88	1.54	1.29	28.60	48.63
	NORMAL	8,068.0	1.40	226.80	8,018.09	-750.92	231.00	785.51	1.09	-1.06	7.45	170.42
3/3/2011	NORMAL	8,162.0	0.40	218.60	8,112.07	-751.96	229.96	786.22	1.07	-1.06	-8.72	183.25
	NORMAL	8,256.0	0.70	220.80	8,206.07	-752.65	229.38	786.73	0.32	0.32	2.34	5.13
	NORMAL	8,351.0	1.10	215.20	8,301.06	-753.84	228.47	787.61	0.43	0.42	-5.89	344.79
	NORMAL	8,445.0	0.90	247.80	8,395.04	-754.85	227.27	788.26	0.63	-0.21	34.68	125.18
	NORMAL	8,541.0	0.30	171.70	8,491.04	-755.39	226.61	788.59	0.91	-0.63	-79.27	199.38
	NORMAL	8,634.0	1.30	64.20	8,584.03	-755.17	227.59	788.65	1.53	1.08	-115.59	240.87
	NORMAL	8,728.0	1.80	49.90	8,678.00	-753.75	229.68	787.87	0.67	0.53	-15.21	314.98

2.3.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
3/3/2011	NORMAL	8,822.0	1.40	55.60	8,771.96	-752.15	231.76	786.90	0.46	-0.43	6.06	161.14
	NORMAL	8,917.0	0.40	104.50	8,866.95	-751.58	233.04	786.71	1.24	-1.05	51.47	165.15
	NORMAL	9,011.0	1.20	285.40	8,960.94	-751.40	232.41	786.36	1.70	0.85	-190.53	180.68
	NORMAL	9,105.0	1.70	272.90	9,054.91	-751.07	230.07	785.39	0.63	0.53	-13.30	321.33
3/4/2011	NORMAL	9,198.0	1.10	266.70	9,147.88	-751.05	227.80	784.75	0.66	-0.65	-6.67	191.08
	NORMAL	9,292.0	0.80	271.50	9,241.87	-751.09	226.24	784.35	0.33	-0.32	5.11	167.53
	NORMAL	9,385.0	0.10	186.80	9,334.87	-751.15	225.58	784.23	0.86	-0.75	-91.08	187.18
	NORMAL	9,479.0	0.30	316.60	9,428.87	-751.05	225.40	784.09	0.40	0.21	138.09	141.72
3/5/2011	NORMAL	9,572.0	1.70	247.10	9,521.85	-751.41	223.96	784.04	1.74	1.51	-74.73	280.51
	NORMAL	9,665.0	1.60	100.60	9,614.84	-752.19	223.97	784.79	3.40	-0.11	-157.53	196.23
	NORMAL	9,759.0	1.10	116.00	9,708.81	-752.83	226.07	785.98	0.65	-0.53	16.38	151.57
	NORMAL	9,851.0	1.30	26.50	9,800.80	-752.28	227.33	785.80	1.84	0.22	-97.28	230.06
	NORMAL	9,945.0	0.60	349.00	9,894.79	-750.84	227.71	784.52	0.96	-0.74	-39.89	203.91
	NORMAL	10,038.0	0.40	320.60	9,987.78	-750.11	227.41	783.74	0.34	-0.22	-30.54	217.48
	NORMAL	10,131.0	2.90	0.70	10,080.74	-747.51	227.24	781.19	2.80	2.69	43.12	45.77
	NORMAL	10,222.0	2.10	336.90	10,171.65	-743.67	226.61	777.33	1.42	-0.88	-26.15	220.89
	NORMAL	10,317.0	2.20	307.50	10,266.59	-740.96	224.48	774.14	1.15	0.11	-30.95	260.38
	NORMAL	10,410.0	2.40	296.30	10,359.51	-739.01	221.32	771.39	0.53	0.22	-12.04	288.32
	NORMAL	10,503.0	0.70	228.00	10,452.48	-738.53	219.15	770.33	2.41	-1.83	-73.44	196.90
	NORMAL	10,596.0	1.30	221.00	10,545.47	-739.71	218.04	771.15	0.66	0.65	-7.53	344.98
	NORMAL	10,689.0	1.10	238.00	10,638.45	-740.98	216.59	771.97	0.44	-0.22	18.28	127.64
	NORMAL	10,783.0	1.70	236.80	10,732.42	-742.22	214.66	772.63	0.64	0.64	-1.28	356.60
	NORMAL	10,876.0	2.00	238.30	10,825.37	-743.82	212.12	773.48	0.33	0.32	1.61	9.92
	NORMAL	10,969.0	2.30	226.90	10,918.30	-745.95	209.38	774.77	0.56	0.32	-12.26	299.26
3/6/2011	NORMAL	11,060.0	2.90	230.60	11,009.21	-748.66	206.26	776.51	0.68	0.66	4.07	17.48
	NORMAL	11,080.0	2.90	220.90	11,029.19	-749.37	205.54	776.99	2.45	0.00	-48.50	265.16
	NORMAL	11,130.0	2.90	220.90	11,079.12	-751.28	203.89	778.37	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

